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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/743,299

12/23/2003

Takeo Kanade

59349.00014

7865

32294 7590 05/01/2009  
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EXAMINER

TUCKER, WESLEY J

ART UNIT

PAPER NUMBER

2624

MAIL DATE

DELIVERY MODE

05/01/2009

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<p align="center"><b>Advisory Action</b> <b>Before the Filing of an Appeal Brief</b></p>	<p><b>Application No.</b> 10/743,299</p>	<p><b>Applicant(s)</b> KANADE ET AL.</p>	
	<p><b>Examiner</b> WESLEY TUCKER</p>	<p><b>Art Unit</b> 2624</p>	

**--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

THE REPLY FILED 22 April 2009 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☒ The period for reply expires 3 months from the mailing date of the final rejection.  
b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**NOTICE OF APPEAL**

2. ☐ The Notice of Appeal was filed on \_\_\_\_\_. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

**AMENDMENTS**

3. ☒ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because  
(a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);  
(b) ☐ They raise the issue of new matter (see NOTE below);  
(c) ☒ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or  
(d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: \_\_\_\_\_. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).  
5. ☐ Applicant's reply has overcome the following rejection(s): \_\_\_\_\_.  
6. ☐ Newly proposed or amended claim(s) \_\_\_\_\_ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).  
7. ☐ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.  
The status of the claim(s) is (or will be) as follows:  
Claim(s) allowed: \_\_\_\_\_.  
Claim(s) objected to: \_\_\_\_\_.  
Claim(s) rejected: \_\_\_\_\_.  
Claim(s) withdrawn from consideration: \_\_\_\_\_.

**AFFIDAVIT OR OTHER EVIDENCE**

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).  
9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing a good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).  
10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

**REQUEST FOR RECONSIDERATION/OTHER**

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because:  
See Continuation Sheet.  
12. ☐ Note the attached Information *Disclosure Statement*(s). (PTO/SB/08) Paper No(s). \_\_\_\_\_.  
13. ☐ Other: \_\_\_\_\_.

/Wes Tucker/  
Primary Examiner, Art Unit 2624

Continuation of 11. does NOT place the application in condition for allowance because: Applicant argues that Haikawa does not disclose features of the recited claims. Examiner has restated previous arguments of the disputed claim elements for Applicant's convenience.

Applicant argues that the reference to Haikawa does not disclose the claimed feature of selecting a predetermined region. Examiner disagrees. When Haikawa discloses screening the shapes in an image to determine the candidate shape points, this is interpreted as a predetermined region. The region to be evaluated is determined from the screening of the image scene. Applicant argues that Haikawa does not disclose a predetermined region. Examiner points to column 7, lines 66-68 and Column 8, lines 1-10. Haikawa discloses that predefined evaluation functions are used to identify feature points. The predefined evaluation functions for recognizing shapes are interpreted as predetermined. The process of finding feature points and matching them to predefined evaluation functions reads broadly on the claimed features.

Applicant further argues that Haikawa does not disclose that a range image is obtained based on the selected region as claimed. Examiner strongly disagrees. Haikawa discloses explicitly determining "the distance between the robot and each shape feature point." The distance between the feature points of the predetermined region and the robot is range directly determined by the image data. Applicant argues that the information of the image and the range to various points in the image does not constitute a "range image." Examiner insists that this set of information reads on a range image as reasonably broadly interpreted. Applicant alludes in the remarks that a range image may be a 3D image with a table indicating range data. Examiner points out that all that is claimed is a range image which will be given the broadest possible interpretation, in the present case, an image with corresponding range data.

Applicant further argues that Haikawa does not disclose recognition of polyhedron shapes based on the range image within a candidate range. Examiner again disagrees. Haikawa explicitly discloses that the polyhedron shapes or staircases are determined along with the range or distance to them (column 6, lines 9-23). This reads on recognizing polyhedrons in the candidate range. The range is interpreted to be a candidate range as it is determined from candidate points defining the object of interest or predetermined region. Furthermore the whole disclosure of Haikawa is directed to recognizing staircases or polyhedrons (see Figures 5, 6, 7, 8, 9, 10, 11, 12, 13, 16, 18, 20, 24 and 25).

The Haikawa patent is directed to the exact same endeavor as the present application, namely a robot with staircase recognition and range finding capabilities. Haikawa is interpreted to read on the claim language. The rejection is therefore maintained and accordingly remains FINAL.